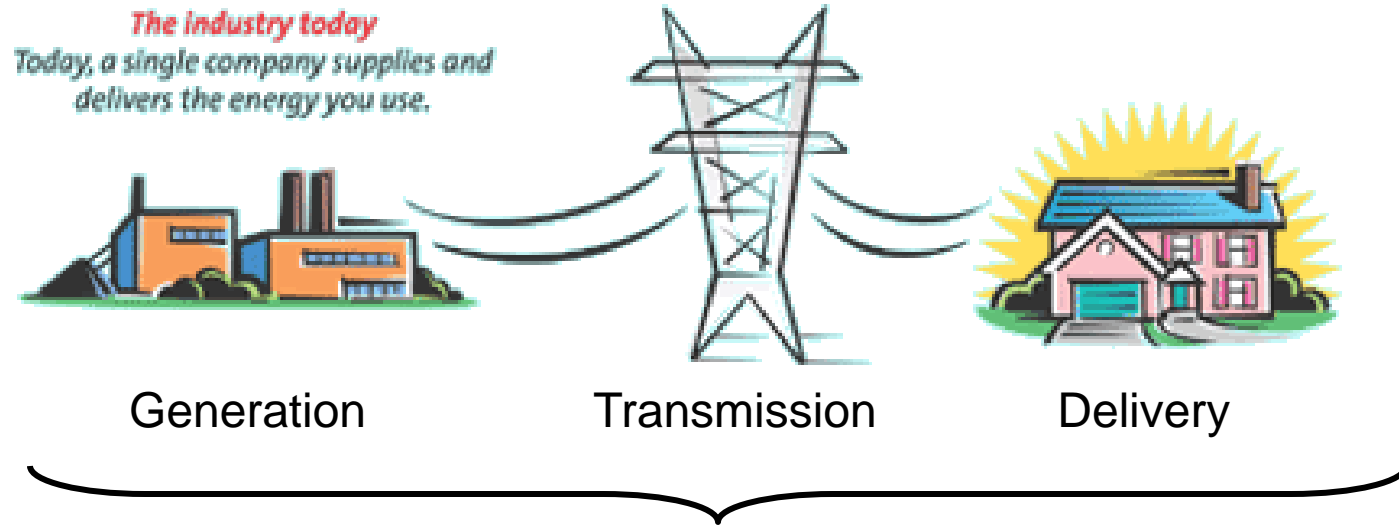


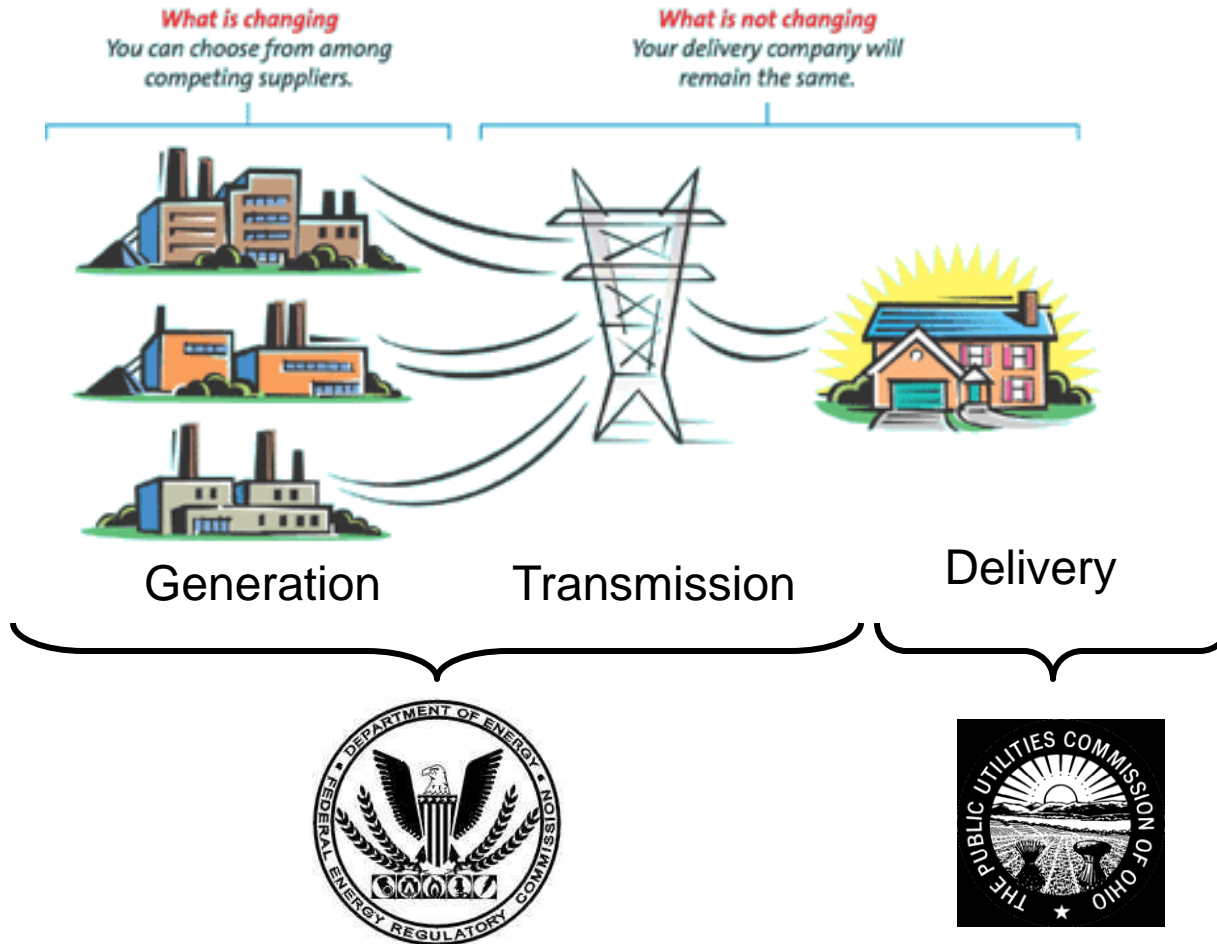
FirstEnergy Electric Rates: Savings Opportunities

September 29, 2010

Regulatory Model



Market Model



Amended Substitute SB 221

- ▶ Signed by Governor May I, 2008
- ▶ Aggressive energy efficiency requirements
 - ▶ 25% from alternative resources by 2025
 - ▶ 25% efficiency gains by 2025
- ▶ Allowed for an auction to determine default generation rates

FirstEnergy Auction Results in 2009

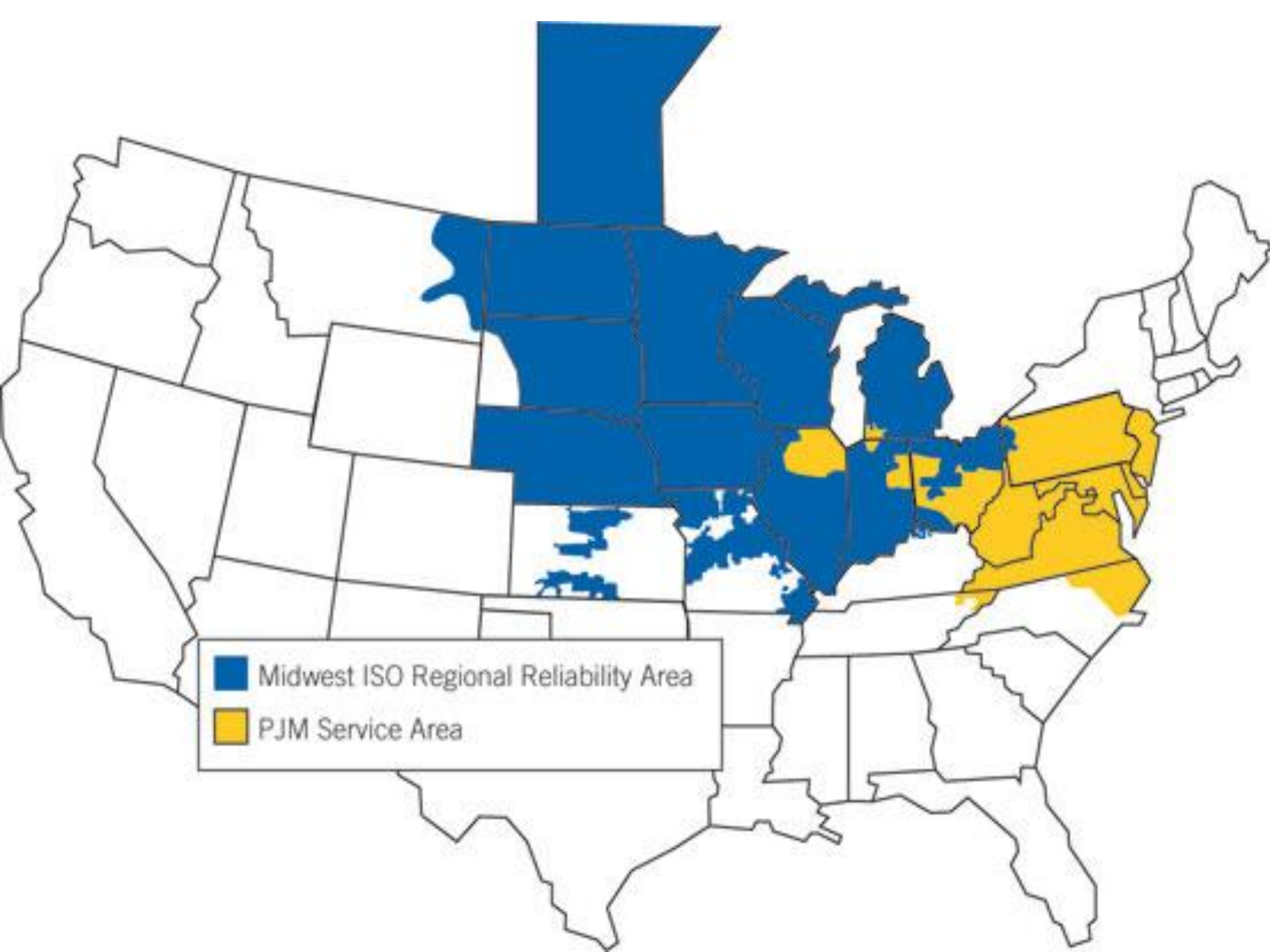
- ▶ Weighted average winning Standard Service Offer (SSO) price was 6.15¢
 - ▶ Far below expectations
 - ▶ 17% below previous year's generation price
- ▶ The SSO rates billed to customers vary by rate schedule and have seasonal variability
 - ▶ Higher rates in the three summer months
- ▶ These rates expire in May of 2011

FirstEnergy's ESP

- ▶ Current Electric Security Plan (ESP) expires on May 31, 2011
- ▶ FirstEnergy filed a proposed new ESP to be effective on June 1, 2011
 - ▶ PUCO approved the plan, with modifications, on August 25th
 - ▶ FirstEnergy accepted the modified ESP on September 7th
 - ▶ Parties opposed to the plan may file Applications for Rehearing by September 24th

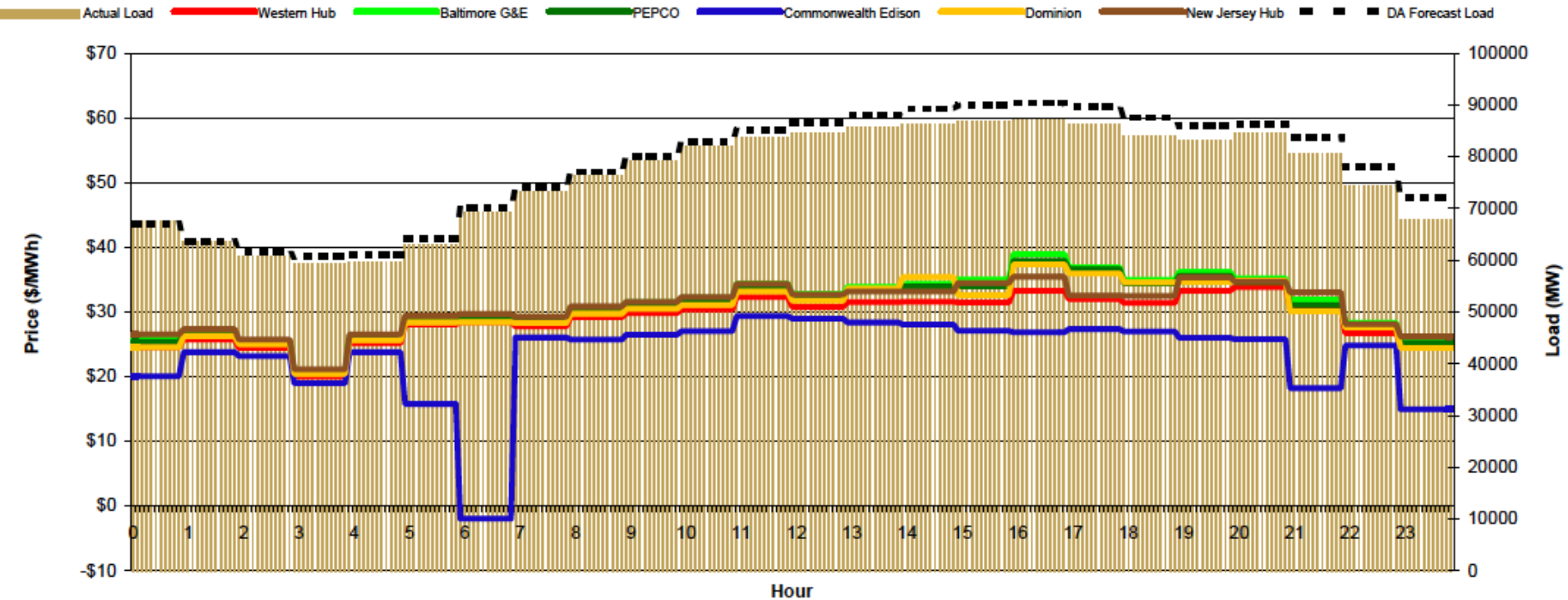
Default Generation Prices

- ▶ The ESP calls for default generation prices for the 3-year period beginning June 1, 2011, to be determined by a series of auctions
 - ▶ October 2010
 - ▶ January and October 2011
 - ▶ January and October 2012
 - ▶ January 2013
- ▶ To minimize market variations and stabilize generation prices

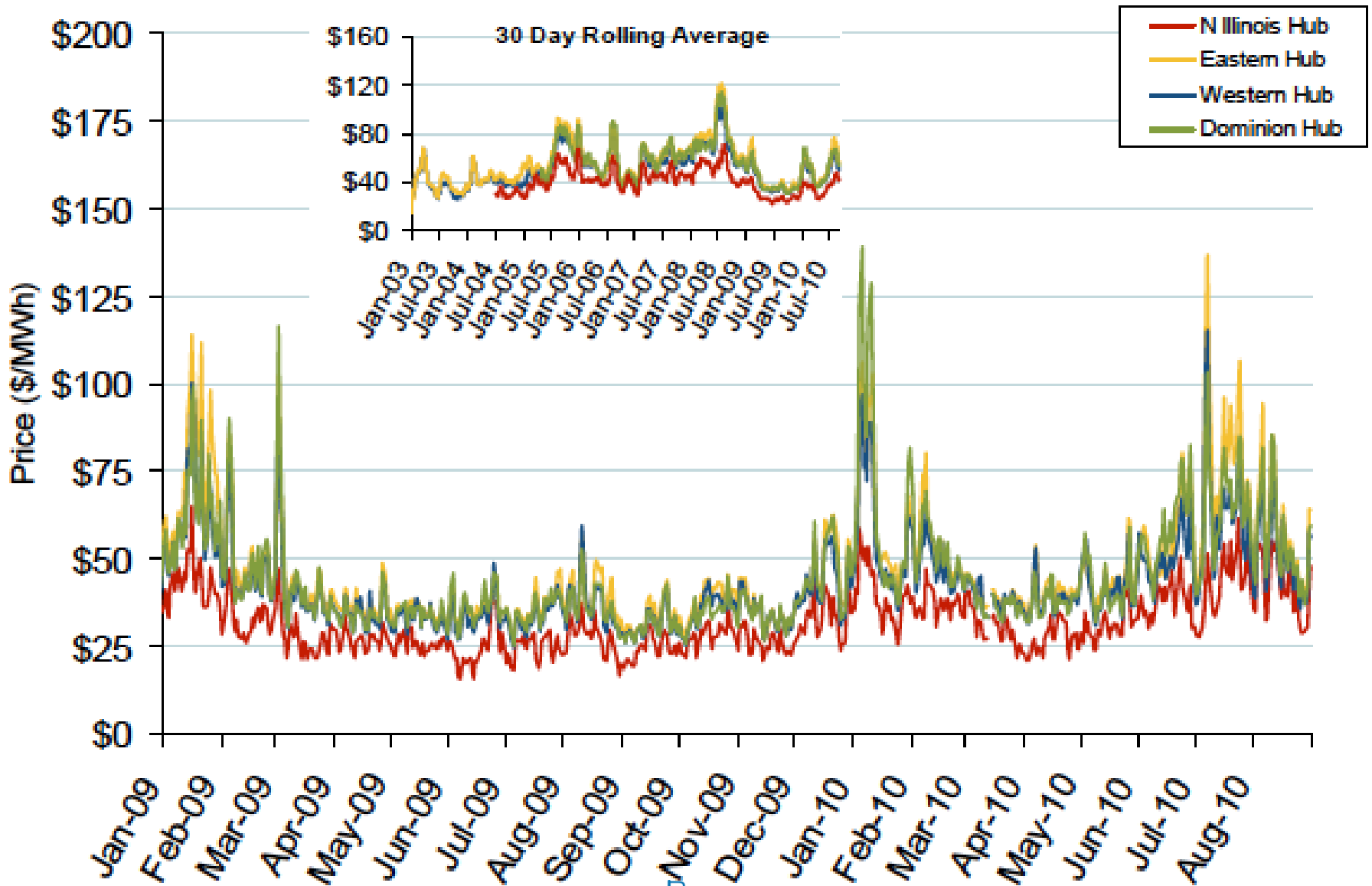


PJM Daily Report

Thursday September 09, 2010



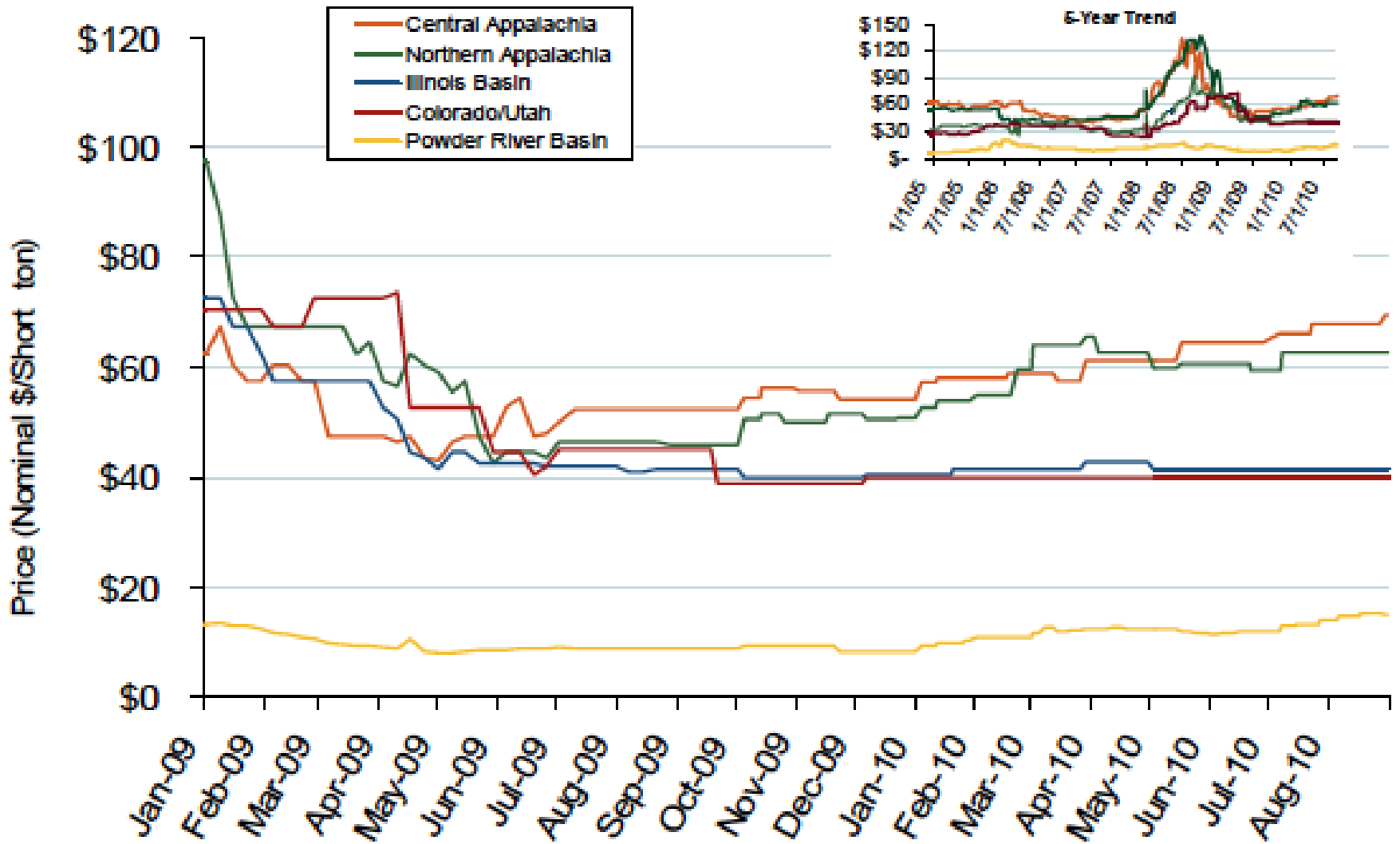
Daily Average of PJM Day-Ahead Prices - All Hours



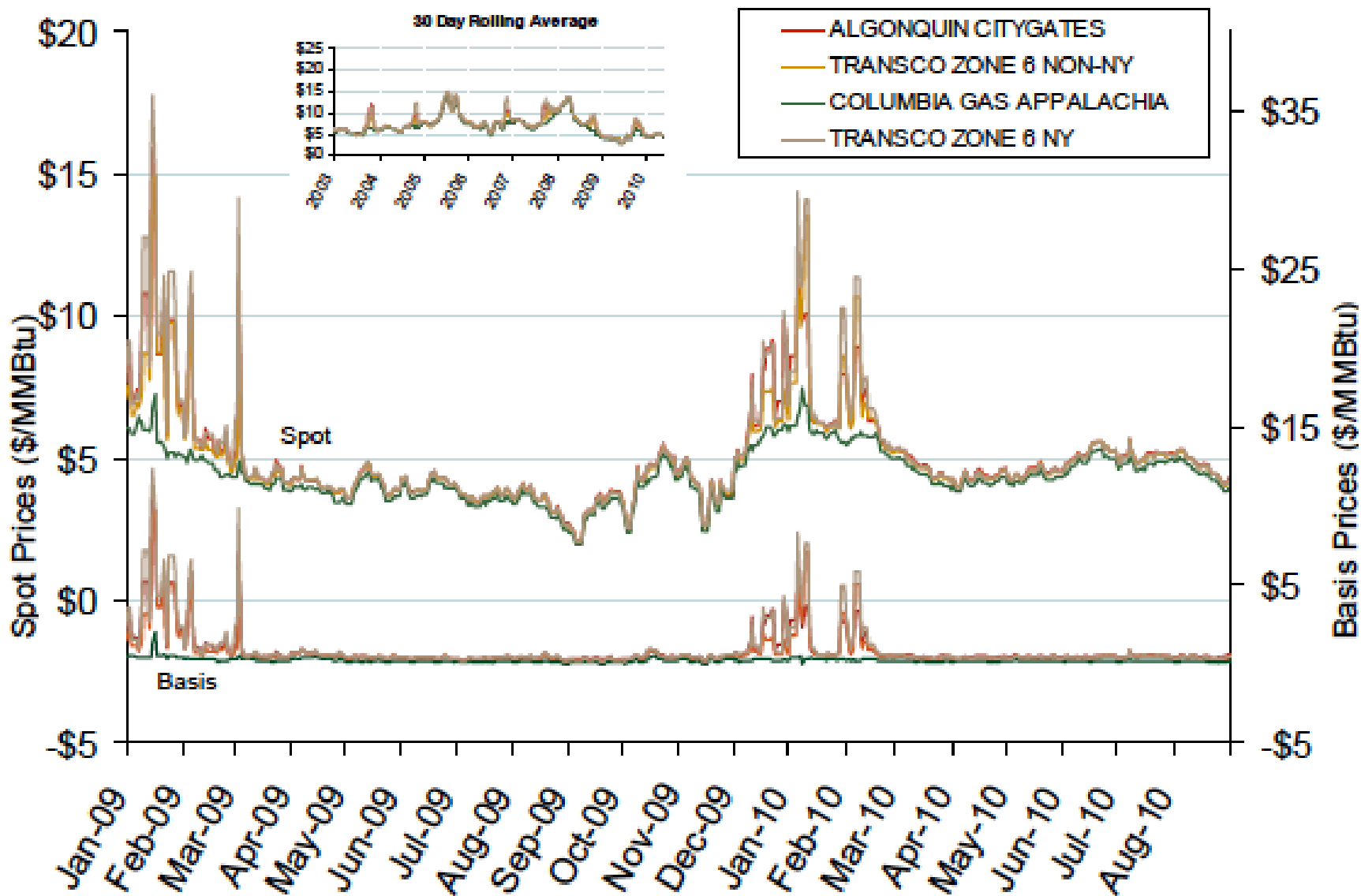
PJM Marginal Fuel Types

- ▶ Coal
 - ▶ 74%
- ▶ Natural Gas
 - ▶ 26%

Regional Coal Spot Prices



Northeastern Spot Prices and Basis



Rate Schedule Eligibility

- ▶ Based on voltage rather than load profile
 - ▶ The higher the voltage, the lower the price
 - ▶ Cost of transformer ownership often negates any rate schedule savings
 - ▶ These new rates took effect in 2009
 - ▶ Reflect more accurately true cost of service

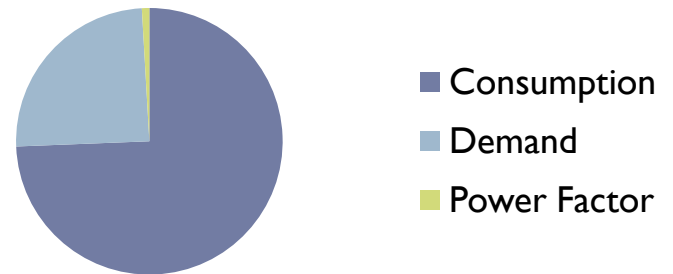
Savings opportunities in the new rates

- ▶ The biggest portion of your electric bill is based on consumption – the actual kWh used
- ▶ There are also charges for:
 - ▶ Demand
 - ▶ The more evenly your load is spread over the billing period, the smaller the demand charges
 - ▶ Power factor
 - ▶ As your power factor approaches 100%, less current must pass through the wiring to operate your equipment
- ▶ In order to estimate the impact of any change in equipment or processes, it is important to know what the utility is charging for each component

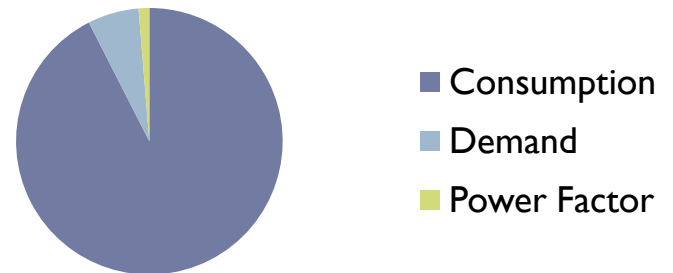
One Example with 2 Rates

- ▶ **Electric Usage Profile**
 - ▶ 86,000 kWh
 - ▶ 350 kW of billed load
 - ▶ 32% load factor
 - ▶ 300 rkva of billed reactive demand
 - ▶ 76% power factor
- ▶ In either case, the biggest bang for the buck is through reducing consumption

CEI Secondary



CEI Subtransmission



Generation shopping: Selecting a product

- ▶ **Fixed price contract**
 - ▶ Can also get fixed on and off-peak product
- ▶ **Block and index**
 - ▶ A block of power is fixed (i.e. 1 MWh) and the rest has exposure to wholesale market
- ▶ **Variable**
 - ▶ Ideal product for companies with a high risk tolerance or poor load profile

Generation shopping: Getting to a good price

- ▶ Quality of offers will be based on the following factors:
 - ▶ Load profile
 - ▶ Do you have an interval meter?
 - ▶ Load factor
 - ▶ Do you run off-peak?
 - 10 PM to 6 AM
 - ▶ Has your load experienced significant variability over the past year?
 - ▶ Relative winter/summer usage
 - ▶ Rate Schedule

Generation shopping: Selecting a term

- ▶ Most offers will extend to the end of the current SSO period (May 2011)
 - ▶ Many suppliers are unwilling to contract past that point because of FE's potential migration to PJM
- ▶ There is a premium built in for contracting for outlier years
- ▶ Number of summer vs. winter months

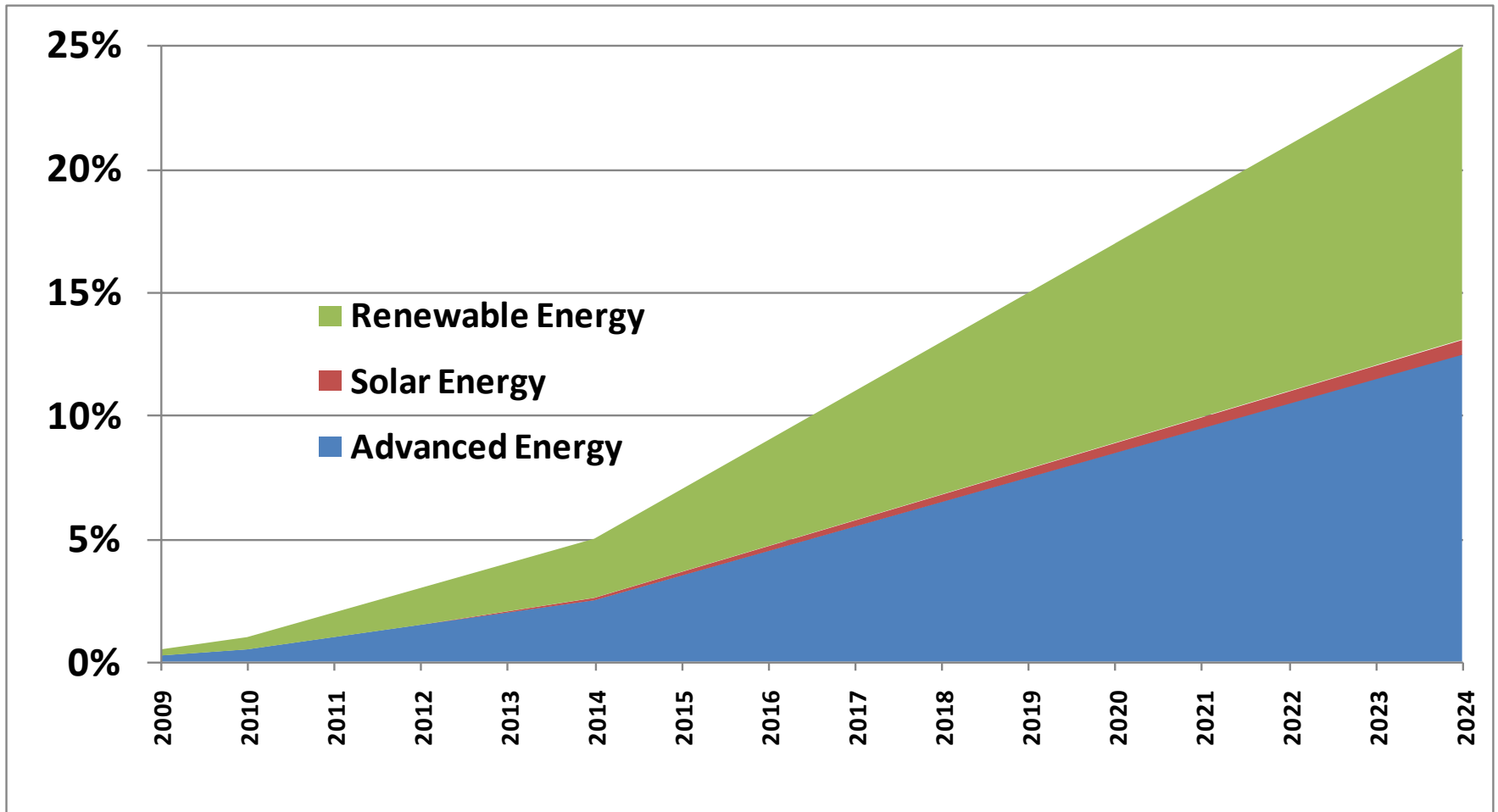
Generation shopping: Traps to avoid

- ▶ Make sure you see the magic words “full requirements” in the contract
- ▶ Watch out for suppliers who try to carve out summer months
- ▶ Bypassable charges
 - ▶ “Change of Law” provisions are nearly universal, but beware of other pass-throughs

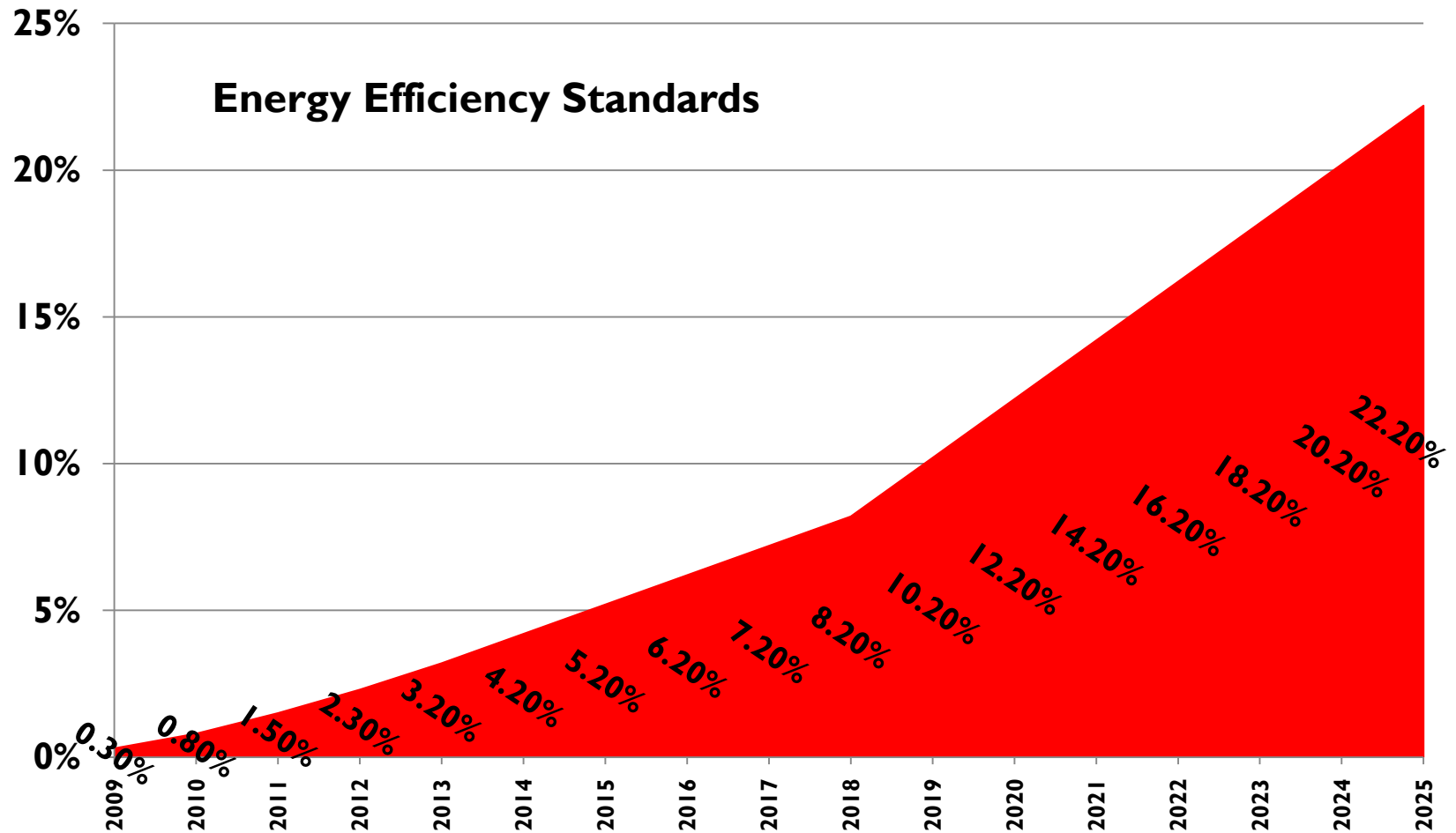
DSE2 Rider

- ▶ Rider to allow FirstEnergy to recoup costs associated with SB 221 portfolio standards
- ▶ Mercantile customers can become exempt from rider by having completed certain energy efficiency projects
 - ▶ Projects completed on or after Jan 1, 2007 count for compliance
- ▶ Can work directly through FirstEnergy or certain approved “administrators”

SB 221 Generation Mandates



SB 221 Energy Efficiency Mandates



Light Bulb Gate



Proposed 2010 DSE2 Rates

Utility	Secondary	Primary	Subtrans- mission	Transmission
OE	0.1252¢	0.0465¢	0.0461¢	0.0460¢
CEI	0.1392¢	0.0677¢	0.0675¢	0.0671¢
TE	0.0776¢	0.0352¢	0.0351¢	0.0350¢

These rates have not yet been approved by the PUCO

Working through an administrator

- ▶ Pre-established administrators can work with mercantile customers to become exempt from the rider
- ▶ Administrators will get paid 1¢/kWh for the first two million kWh's of efficiency, and 1/4¢ for every kWh thereafter.
 - ▶ Technically, it is the administrator getting paid, so make sure this is getting passed on to you!